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TOWARDS A PURE THEORY OF THREAT SYSTEMS

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The world of the economist is organized fundamentally by exchange. This relationship, by which each of two parties gives up something to the other and receives something in return, is indeed a powerful social organizer. It is capable of organizing the division of labor and the allocation of resources, and it guides specialized production, as every elementary student of economics knows. In its general form it starts off as a conditional promise: "You do something nice to me and I will do something nice to you." If the other party to whom the communication is addressed accepts the invitation, the promises are fulfilled and the exchange is consummated. In this consummation we have a positive-sum game, provided that the exchange has been a free one in which both parties benefit, at least in their own opinion at the time. There may be later regrets which could turn the operation as it actually takes place into a negative-sum game, but the economist has generally assumed that these are small, and that such disappointments as may occur in exchange constitute a learning process by which everybody eventually learns to make wise choices among the opportunities which are open to him in the market. Exchange, furthermore, is the key relationship in what we might call unconscious or ecological economic development. It encourages the division of labor and this in turn encourages the increase in "skill and dexterity," and the growth, ultimately, of a specialized class of "philosophers," as Adam Smith called them, who practice research and development—all of which leads to increase in the "productive power of labor."

Exchange, however, is not the only system by means of which social organization is built up. Economists have always recognized that exchange can develop a process of social organization and growth only if certain prerequisites are fulfilled in the way of institutions of property, law and order, and so on. The economist, however, has tended to identify these other organizers as essentially static or given in nature and providing merely the preconditions or the framework within which exchange does the real work. Milton Friedman and the "Chicago School" (if there is one) represent the extreme of this point of view. This, however, would seem to be an unrealistic appraisal of the way in which the dynamics of most societies operate. Exchange is by no means the only human relationship which is capable of producing differentiation, division of labor, role structure, communication patterns, and all the other marks of organizational development. I distinguish at least two other types of human relationship which have the property of organizing social systems. The first of these is the threat, which is the main subject of this paper; the second may be called the integrative relationship, which involves a "meeting of minds" (that is, a convergence in the images and the utility functions of the parties towards each other). There is, of course, a negative of this relationship: the disintegrative relationship, in which the images move further apart. The integrative relationship is itself a complex of many different types of relationship, such as, for example, the teaching-learning relationship between the teacher and the student, the persuasive relationship between an orator and his audience or between an advertiser and his addressees, and a great variety of relationships, such as respect, affection, love, and so on, which lead towards similarity in value or utility functions over the domain of various states of the world in the minds of the parties concerned. Economists pay very little attention to these integrative systems, and indeed have generally tended to assume, what in the dynamic sense is sheer nonsense, that utility functions are given —whereas, as Veblen pointed out, they are the product of human interaction. I would add that they are especially the product of the integrative relationships in society.

It must be emphasized that threat systems, exchange systems, and integrative systems are practically never found in a pure form. All actual social systems are likely to contain all three elements. Even under slavery, for instance, which has a high proportion of threat, there are elements of exchange and even of integration. At the other extreme, in the family, the monastery, or the utopian community, where the integrative system is dominant, there are also elements of exchange and threat. Even in the most loving family or community there is a point below which the terms of trade of an individual member cannot deteriorate without causing serious trouble, and the threat of expulsion always remains an ultimate sanction. Just as economics, however, has prospered by abstracting from the complexity of the social system as a whole a single relationship and element, that of exchange, and has built an elaborate theoretical and empirical structure on this foundation, which can then throw light on the more complex processes of the real world, so the phenomena of threat systems on the one side or integrative systems on the other can be abstracted out of the social complex and developed in a pure form. It is tempting, indeed, to try to assign the threat systems to the political scientist and integrative systems to the sociologist, as we assign exchange to the economist, though this division is too neat to correspond to the untidy facts of academic specialization.

Let us then look at the threat as an abstract human relationship, as an economist might look at exchange, and consider how this might be used as an organizer of society. Like exchange, threat in its simplest form is a relationship between two parties. Exchange, however, originates in a conditional promise to do something good if something good is done in return, whereas a threat originates in a promise to do something bad. The threat relationship begins when the threatener says to the threatened, "You do something nice to me or I will do something nasty to you." The exchange-like form of the threat can be seen in the threat of the holdup man, "Your money or your life," which looks like "Give me your money and I will give you your life." There is a real difference, however, between the commodity which is offered in exchange and the discommodity which is offered in the threat. "I will give you your life" means "I will not take away your life." In order for the threat to be perceived as a threat by the threatened, the threatener must be able to create a perception of credibility; that is, of both capability and will of carrying out the threat if the threatened does not do what the threatener wants him to do. We may note that we have exactly the same problem of credibility in exchange, but it is less prominent because the information is usually more obvious. We visualize the exchanger as handing out the object which he offers to exchange. In financial exchanges, however, when what is offered is a promise to pay in the future, the problem of credibility becomes very real and takes much the same form that it does in threat systems.

The subsequent course of the system depends very much on the nature of the response to the initial threat. Four responses may be distinguished which may be labeled submission, defiance, counterthreat, and the integrative response.

Submission is a not infrequent, though seldom popular, response to threat. When the holdup man threatens us we give him our wallet. When the parent says, "Don't steal the cookies or you'll be spanked," the child refrains from stealing the cookies. When the master says to the slave, "Work for me or I will kill you," the slave frequently obeys. When the state says, "Become a soldier or I will put you in prison," the young man allows himself to be conscripted. The threat-submission system is likely to be a conflict system; that is, it is likely to move the parties to a state in which the threatener is better off and the threatened is worse off than in the initial condition. The welfare situations can be illustrated in a field such as Figure 1, in which we plot A's welfare horizontally and B's welfare vertically. Suppose P_1 represents the welfare of both parties before the threat is made. The very act of making the threat is likely to change the positions of the parties in this field. They may, for instance, move to P_2, where both parties are worse off; the threat creates a state of anxiety in the minds of both parties. On the other hand it is possible that A, the threatener, may enjoy making threats, in which case the actual making of the threat might move the parties to P_2'. When submission takes place, we may move to a position like P_3, where A is better off and B is worse off. This is a typical conflict move. On the other hand, it is not impossible that B's submission to the threat may make him better off as well as A, though this is unlikely; that is, submission might move us from P_2 to a position such as P_3'. This is the situation where A is threatening to make B do something for B's own good which B would not be motivated to do in the absence of threat. The moral justification for threat frequently revolves around this hypothesis. We threaten to spank the child or to fail the student or to hang the murderer strictly for his own good, even if a little skepticism as to these protestations may not be out of order.

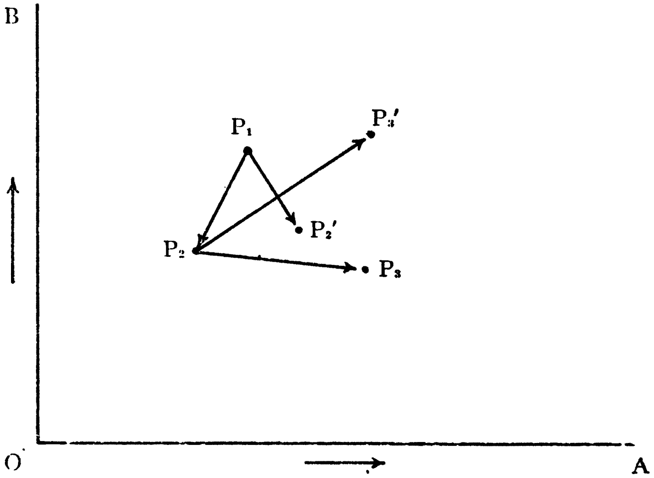

FIGURE 1

The threat-submission relationship has been a powerful social organizer. It is, indeed, one of the major organizers of classical civilization insofar as this rests on slavery. It is also the foundation of a good deal of obedience to the law and of the authority of the state. As Baumol has pointed out in his *Welfare Economics and the Theory of the State,* we may quite rationally vote to threaten ourselves where there is something, like paying taxes, which everybody wants to do if everybody does it, but which nobody wants to do if other people do not. The possibility of nonconflictual threat-submission relationships, therefore, is not to be taken lightly. A key concept here is that of the legitimacy of threat. We submit to the traffic cop and the stoplight because we all recognize their legitimacy. The concept of legitimacy is perhaps more in the domain of integrative systems than of threat systems, but this only illustrates how intertwined these two systems may be.

Threats can be perceived as legitimate only if they are also perceived as appropriate; the threatened punishment must fit the deterred crime. Even if what we are trying to accomplish is not perceived as preventing a crime by the threatened party, that is, even if the threat is not perceived as legitimate, its credibility still depends on its appropriateness. To say to a child, "If you steal the cookies I will kill you," is only credible, and only deters, if not taken literally. This is why "massive retaliation" is impotent against "salami-slicing," to slip once more into the repulsive jargon of strategic science.

The second possible response to threat is defiance. This is somewhat analogous to the nonconsummation of exchange because of a refusal to trade. A says to B, "You give me X and I will give you Y"; B simply says, "No, it's not worth it to me," and the situation returns to the *status quo ante*. In threat systems the situation is more complicated because defiance puts a burden of response on the threatener and hence is in some sense a challenge to him. The threatener then has to decide whether or not to carry out the threat. If he does carry out the threat, this is likely to have a cost to him as well as to the threatened. We have here a very clear negative-sum game. If he does not carry out the threat his credibility is impaired; there is still a cost to him. Defiance therefore always imposes a cost on the threatener which is not found in the corresponding situation in exchange. The probability of this should presumably be taken into account by a rational threatener in deciding whether or not to make the initial threat.

The third alternative is the counterthreat; that is, "If you do something nasty to me, I will do something nasty to you." This is deterrence. This also imposes upon the original threatener a choice of whether or not to carry out the threat. If he is in fact deterred, his credibility is thereby apt to be weakened the next time he makes a threat; that is, there is a decline, as it were, in the capital value of his threat potentiality. If he carries out his original threat, there is likely to be a mutual exchange of "bads," or carried-out threats, which is very clearly a negative-sum game. This is perhaps the greatest difference between threat systems and exchange systems, for when exchange is consummated it is almost always positive-sum, whereas when threats are consummated they are usually negative-sum. This is why exchange systems have a much higher horizon of development than threat systems. This explains, I think, why in the long pull the free labor market, for instance, has always been able to outdo slavery, and why all classical civilizations have ultimately perished whereas the world of trade has grown slowly but persistently from its very origins.

Perhaps the most important single feature of systems of deterrence is their long-run instability. The whole history of threat systems is summed up succinctly in two verses from St. Luke (11:21-22): "When a strong man armed keepeth his palace, his goods are in peace; but when a stronger than he shall come upon him and overcome him, he taketh from him all his armor wherein he trusted and divideth his spoils." It is indeed a source of the basic long-run instability of all threat systems that the unilateral threat system, or the threat-submission system, which may be fairly successful for a time, almost inevitably degenerates into the bilateral threat system, or deterrence. Deterrence is successful as long as it deters, but deterrence itself seems to be unstable. The reason for this, I suspect, is that the credibility of threats depreciates with time if threats are not carried out. Hence threats occasionally need to be carried out in order to re-establish their credibility. Another reason is that threat capability declines if threats are not occasionally carried out, particularly where this capability is enshrined in complex social organizations and in apparatus such as armed forces.

For both these reasons, a state of stable deterrence is rarely stable for long. Eventually either the capability or the credibility, or both, of one of the parties will depreciate to the point where the other party will make new demands. At this point deterrence breaks down and the system slips either into submission or into defiance. Submission is particularly hard if the parties have lived under stable deterrence for a while, so the outcome of a new demand is likely to be defiance. This, then, forces on the imposer of the new demand the choice between carrying out the threat or acceptance of the defiance, which would further destroy his credibility. He is likely, therefore, to carry out the threat, which will lead to the carrying out of the counterthreat, which will result in a negative-sum game known as war. In this, it is true, one party may emerge relatively better off than the other, and indeed if the loser is very much worse off the victor may even be absolutely better off. In this case we may pass again to a unilateral threat system. This is the "successful" period of the new civilization, and this again leads to counterthreats and ultimate downfall. Thus the rise and fall of civilizations seems to be implicit in the very nature of the threat system itself—as, indeed, a pure exchange system is also likely to experience ultimate cycles of boom and collapse. It may be that, ultimately, only integrative systems can provide stability, and I am not sure even of that.

This brings us to the fourth possible response to threat, which is the integrative response. This is harder to analyze and to describe. It may take a great many different forms because of the very richness of the integrative system itself. The integrative response is that which establishes community between the threatener and the threatened and produces common values and a common interest. The integrative response may be mixed with any one of the first three responses. Submission, for instance, may be made in such a way that the threatener is eventually absorbed into a larger culture and the threat system disappears. The experience of the Negro in the United States may be such a case. By accepting and illuminating the ostensible value system of his conquerors, the Negro both made and produced an integrative response which eventually made slavery impossible. In the gandhian experience in India we have an example of defiance mixed with an integrative response; this is the essence of nonviolent resistance. The threatened party, by defying the threatener and by accepting the consequences without bitterness or complaint, eventually undermines the morale of the threatener and the threat system disintegrates. Examples of counterthreat used as an integrative response seem to be rarer, for whereas both submission and defiance, in a sense, unite the threatener and the threatened in some sort of a social system in which integrative factors may operate, the counterthreat divides the threatener from the threatened, breaks any bond which might develop between them, and hence is apt to be disintegrative rather than integrative. This perhaps is another reason for the fundamental instability of deterrence, and its ultimate certainty of failure. It is still not inconceivable, however, that a carefully controlled counterthreat might be combined with an integrative response. We may have seen something like this happen in the industrial relationship, where the threat to fire on the part of the employer may produce either the counterthreat to quit or the more organized counterthreat of the strike. In this case, however, the very nature of the relationship and the fact that if there is to be an industrial organization at all the parties have to live together, opens up the possibility of integrative solutions to counterthreat systems. Where, for instance, the threat or even the actuality of the strike is used to obtain union recognition and a contract, we see counterthreat being used as a device to establish an essentially integrative system of industrial jurisprudence. Parallel to this in international systems might be a counterthreat system used to achieve a disarmament organization or a world government.

Like exchange systems, threat systems have a geographical structure which is imposed on them by the fact that threats, like commodities, have a cost of transport. Because of this there are many striking parallels, as I have pointed out in *Conflict and Defense* (Harper and Row, New York, 1962), between the competition of states by means of threats and the competition of firms by means of exchange. Thus the theory of duopoly is very much like that of a bipolar system in international relations. Each of the competing organizations has a certain "home strength" as represented by the threat capacity in the case of the nation or the cost of production at the mill in the case of the firm. As it goes away from home it has to incur a cost of transport, so that the further from home the organization operates the smaller the threat that it can bring to bear or the higher the price it must charge. In each case this represents an application of the general principle of "the further the weaker." Between two states as between two firms there is likely to be a boundary of equal strength, with each organization dominating the area between itself and the boundary. Such a situation can easily lead to an arms race or a price war, as each organization tries to push the boundary of equal strength further from its home base, either by increasing its armaments or by cutting its mill price. This is pretty clearly a negative-sum game, from which the parties can usually only be rescued by an integrative system of some kind, for instance a merger in the case of the firms, or in less extreme forms a gentleman's agreement, and in the case of states a federation or a "security community."

These considerations lead to an interesting theory of viability which I have also expounded in some detail in *Conflict and Defense*. An organization may be said to have unconditional viability if no other organization has the capability of destroying it; that is, an organization is unconditionally viable if it is dominant over all other organizations at its home base. A system of unconditional viability is only possible if each organization is stronger than any other or any reasonable combination of others. This paradoxical result is attainable if the organizations are far enough apart and if their strength, that is, their threat capability, diminishes rapidly enough for each one as he goes away from home, that is, if there is what I call a high loss-of-strength gradient. A system of stable unconditional viability is threatened either by an increase in the number of organizations in a given field or by diminution of the loss-of-strength gradient. The less the loss-of-strength gradient, the fewer organizations can coexist in unconditional viability.

I have argued that the peculiar crisis of national defense today is a result of the loss of unconditional viability even by the largest nations in the light of the nuclear threat. If we are to exist at all, it must be on conditions of conditional viability, in which each organization can destroy the other but refrains from doing so. This is not an altogether unfamiliar system—indeed, in interpersonal relations we have had to live with it. In the age of the sword, unconditional viability for the individual was at least not inconceivable, even though one had to be a pretty good swordsman to achieve it. The crossbow and, following that, firearms ruined this system and in our personal relations we now live in a world in which we are literally all at each other's mercy. One would think that, in these circumstances, mercy would be taken seriously and studied, but this is the last thing that anyone seems to want to do. In international relations, especially, we are still living under the illusion of unconditional viability, and we may have a very rude awakening.

Concepts of liquidity and inflation which have been developed in economics have also some applicability to threat systems. The concept of generalized military capability is closely related to the economic concept of liquidity. A liquid asset is something with which anything can be bought; a military capability is something with which anything can be destroyed. It is, as it were, money for the doing of harm. Another reason for the instability of threat systems, incidentally, is that harm can be done much faster than good (I am indebted to T. C. Schelling for this observation). One might add, however, as a corollary that the ultimate victory of exchange and integrative systems over threat systems is assured by the fact that more good can be done than harm. The doing of harm has a limit of total destruction; that is, of zero good. The doing of good has no definite upper limit. The liquidity or the lack of specificity of a military capability is another factor which is likely to lead to the instability of the threat system. The military capability of A is a generalized threat directed, say, at B, C, D, and E. Each of these parties, however, perceives the threat as if it were directed wholly at him. The perception of the threat, therefore, on the part of the threatened is four times the amount of the threat on the part of the threatener at a maximum. It is not surprising that under these systems threat systems produce armament races which almost inevitably lead to the carrying out of the threat.

When threat systems become embodied in military organizations, we have problems arising which are strikingly parallel to those which develop for economics when production and exchange get to be concentrated in firms. The military organization, which I have elsewhere called the "milorg," is the equivalent in the threat system of the firm in the exchange system. It possesses many of the qualities and characteristics of the firm. It has a hierarchical organization, it is organized by a budget, it has flows of expenditures most of which are laid out in the purchase of inputs, and it has a flow of receipts. The major difference between the milorg and the firm arises from the source of the receipts: in the case of the firm, receipts are derived from the sale of a product on the market; in the case of the milorg, the receipts are derived from a government budget and ultimately from taxation or from the creation of money. The milorg, that is to say, does not produce a clearly defined product in the way that a firm does; its receipts have more the character of transfer payments than of returns from sales;

that is, exchange. In this respect it is more like a philanthropy than it is like a firm. If we ask what it produces, we would have to answer in terms of a generalized threat; that is, a capability of doing harm to unspecified persons or things.

We may go further, indeed, and distinguish a number of different "commodities" which the milorg produces. One in the currently fashionable terminology is the "counterforce." This is the diminution of a potential enemy's capacity to harm the home organization. This might take the form of a defensive work such as a wall, a buffer state, a Maginot Line, or anything which would sharply increase the potential opponent's loss-of-strength gradient as he moved towards the defended center. It might also take the form of an ability to destroy the opponent's milorg or those aspects of it which have capability of destroying the home organization. Another product of the milorg might be, again in the fashionable terminology, "countervalue." This is the ability to threaten, not the threat-makers of the opponent, but the things which he values—his cities, people, social organizations, and so on. Countervalue weapons and organizations are generally associated with deterrents, that is, with counterthreats, but they may also be used unilaterally to threaten the opponent into doing something which the threatener wants. The great difficulty of operating a threat system is that all these different threat-commodities are very hard to distinguish in practice, and hence an action which is intended to be one kind of threat may be interpreted at the other end as a totally different kind. Insofar as threats are used as instruments of persuasion to change people's opinions or behavior, they tend to suffer from a defect of all persuasion systems: that what is persuasive to the persuader is not always persuasive to the persuadee. The threatener or the persuader has an image of the other which is derived largely from his own experience, and hence is likely to be false in many important regards. Our threats, like our persuasions, tend to be directed at some imaginary person whom we have made in our own image, not at the real person at whom the activity is directed.

The analogue of inflation in threat systems is found in the arms race, in which both parties continually increase the amount of economic resources which they are putting into organized threats (milorgs) without changing their relative power position. Today, indeed, we may be approaching a hyperinflation of the threat system under the impact of military research and development, which effectively destroys any validity which the system once may have had. We can then look at arms control as an attempt at stabilizing the "price level" after a hyperinflation.

The subject could be pursued much further, and there seems to me to be no reason why a science of threat systems should not be developed at least as elaborately as economics builds from exchange. This science, perhaps, still has to find its Adam Smith, but one feels that so much development has gone on in it in recent years that its "Wealth of Nations" must be just around the corner. The need for this science, furthermore, is very urgent. Because of the development of the nuclear weapon and the consequent disappearance of unconditional viability, the whole threat system, that is, the system of national defense, is suffering a grave crisis—indeed, I would argue, a breakdown. The control of the threat system, therefore, is a matter of the topmost priority for the human race. Unless we do this we may not have a chance to develop any other systems. In order to control a threat system, however, we must understand it. It is one of the most astonishing features of human society that governments are willing to invest so much money in threat systems with only crude folk knowledge as to how these systems actually work, and without being at all interested, apparently, in finding out more about them. This is perhaps because the threat system is an important element in the integrative system of most societies. Nations are built on the solid foundations of violence and cruelty, threats and counterthreats. Our national heroes are soldiers and our national mythology is a mythology of successful threat. A threat to the threat system, therefore, is seen as a threat to the integrity of the society itself. We love making threats and it satisfies our masculine demand for "strength" to make them, and hence a threat to the threat system is seen as a threat to that which we love. To make a science of threats, however, is to threaten the threat system itself, for a system so inefficient in producing welfare as the threat system is can only survive as long as it is supported on folk ignorance. It is little wonder, therefore, that the science of threat systems has been so slow to develop.

My thesis may perhaps be summarized in the following lines of verse:

Four things that give mankind a shove
Are threats, exchange, persuasion, love;
But taken in the wrong proportions
These give us cultural abortions.
For threats bring manifold abuses
In games where everybody loses;
Exchange enriches every nation
But leads to dangerous alienation;
Persuaders organize their brothers
But fool themselves as well as others;
And love, with longer pull than hate,
Is slow indeed to propagate.